

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the application of:
Daniel ORTEGA GONZALEZ *et al.*

Serial No.: To Be Assigned

Filed: Herewith

For: ARRAYED WAVEGUIDE GRATING WITH
REDUCED CROSSTALK

Attorney Docket No.: **KLW-001**

Group Art Unit:

Examiner:

Commissioner for Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

Dear Sir:

Preliminary to examination of the above-referenced patent application, please amend the application as follows.

In the Claims:

Please amend claims 9, 17 and 18 as follows.

9. An AWG according to claim 1, wherein each output waveguide is a double-mode waveguide.

17. An array waveguide grating (AWG) device according to claim 1, wherein the first and second slab couplers are arranged so that a longitudinal axis of the second slab coupler is substantially perpendicular to a longitudinal axis of the first slab coupler, said output waveguides are arranged to receive zero order output signals imaged at an output face of the second slab coupler, and the AWG device further includes additional

waveguides optically coupled to the second slab coupler for conveying higher order signals comprising at least some first order output signals, away from the second slab coupler.

18. An AWG according to claim 17, wherein the output waveguides are arranged so as to bend away from an area into which non-zero order output signals imaged by the second slab coupler, comprising at least some first order output signals, diverge from the second slab coupler.

REMARKS

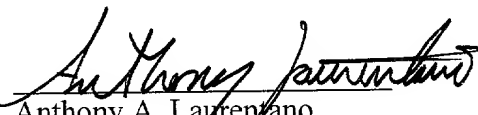
Preliminary to examination of this application, please amend claims 9, 17 and 18 as set forth above. These claim amendments attend to minor formal matters, and are not related to issues of patentability. Support for the amendment to the claims can be found throughout the specification, Figures and claims as originally filed.

Applicants respectfully submit that the foregoing amendments introduces no new matter. Entry of the foregoing Preliminary Amendment is thus in order and requested.

If there are any questions regarding the proposed amendments to the claims 9, 17 and 18, we invite the Examiner to call Applicants' representative at the telephone number listed below.

Respectfully submitted,

LAHIVE & COCKFIELD, LLP


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Date: May 30, 2001

Parameter	Unit	Value
Initial concentration	mol/L	0.01
Final concentration	mol/L	0.005
Initial volume	L	1.0
Final volume	L	2.0
Initial pressure	atm	1.0
Final pressure	atm	0.5
Initial temperature	K	300
Final temperature	K	300
Initial density	g/cm ³	1.0
Final density	g/cm ³	0.5
Initial viscosity	P	0.01
Final viscosity	P	0.005
Initial conductivity	S/m	1.0
Final conductivity	S/m	0.5
Initial permittivity	F/m	1.0
Final permittivity	F/m	0.5
Initial permeability	H/m	1.0
Final permeability	H/m	0.5
Initial refractive index	-	1.0
Final refractive index	-	0.5
Initial absorption coefficient	1/m	1.0
Final absorption coefficient	1/m	0.5
Initial scattering coefficient	1/m	1.0
Final scattering coefficient	1/m	0.5
Initial reflection coefficient	-	1.0
Final reflection coefficient	-	0.5
Initial transmission coefficient	-	1.0
Final transmission coefficient	-	0.5
Initial loss coefficient	1/m	1.0
Final loss coefficient	1/m	0.5
Initial gain coefficient	1/m	1.0
Final gain coefficient	1/m	0.5
Initial quality factor	-	1.0
Final quality factor	-	0.5
Initial coupling coefficient	-	1.0
Final coupling coefficient	-	0.5
Initial isolation coefficient	-	1.0
Final isolation coefficient	-	0.5
Initial return loss	dB	1.0
Final return loss	dB	0.5
Initial insertion loss	dB	1.0
Final insertion loss	dB	0.5
Initial reflection loss	dB	1.0
Final reflection loss	dB	0.5
Initial transmission loss	dB	1.0
Final transmission loss	dB	0.5
Initial absorption loss	dB	1.0
Final absorption loss	dB	0.5
Initial scattering loss	dB	1.0
Final scattering loss	dB	0.5
Initial reflection loss	dB	1.0
Final reflection loss	dB	0.5
Initial transmission loss	dB	1.0
Final transmission loss	dB	0.5
Initial absorption loss	dB	1.0
Final absorption loss	dB	0.5
Initial scattering loss	dB	1.0
Final scattering loss	dB	0.5
Initial reflection loss	dB	1.0
Final reflection loss	dB	0.5
Initial transmission loss	dB	1.0
Final transmission loss	dB	0.5
Initial absorption loss	dB	1.0
Final absorption loss	dB	0.5
Initial scattering loss	dB	1.0
Final scattering loss	dB	0.5
Initial reflection loss	dB	1.0
Final reflection loss	dB	0.5
Initial transmission loss	dB	1.0
Final transmission loss	dB	0.5
Initial absorption loss	dB	1.0
Final absorption loss	dB	0.5
Initial scattering loss	dB	1.0
Final scattering loss	dB	0.5
Initial reflection loss	dB	1.0
Final reflection loss	dB	0.5
Initial transmission loss	dB	1.0
Final transmission loss	dB	0.5
Initial absorption loss	dB	1.0
Final absorption loss	dB	0.5
Initial scattering loss	dB	1.0
Final scattering loss	dB	0.5
Initial reflection loss	dB	1.0
Final reflection loss	dB	0.5
Initial transmission loss	dB	1.0
Final transmission loss	dB	0.5
Initial absorption loss	dB	1.0
Final absorption loss	dB	0.5
Initial scattering loss	dB	1.0
Final scattering loss	dB	0.5
Initial reflection loss	dB	1.0
Final reflection loss	dB	0.5
Initial transmission loss	dB	1.0
Final transmission loss	dB	0.5
Initial absorption loss	dB	1.0
Final absorption loss	dB	0.5
Initial scattering loss	dB	1.0
Final scattering loss	dB	0.5
Initial reflection loss	dB	1.0
Final reflection loss	dB	0.5
Initial transmission loss	dB	1.0
Final transmission loss	dB	0.5
Initial absorption loss	dB	1.0
Final absorption loss	dB	0.5
Initial scattering loss	dB	1.0
Final scattering loss	dB	0.5
Initial reflection loss	dB	1.0
Final reflection loss	dB	0.5
Initial transmission loss	dB	1.0
Final transmission loss	dB	0.5
Initial absorption loss	dB	1.0
Final absorption loss	dB	0.5
Initial scattering loss	dB	1.0
Final scattering loss	dB	0.5
Initial reflection loss	dB	1.0
Final reflection loss	dB	0.5
Initial transmission loss	dB	1.0
Final transmission loss	dB	0.5
Initial absorption loss	dB	1.0
Final absorption loss	dB	0.5
Initial scattering loss	dB	1.0
Final scattering loss	dB	0.5
Initial reflection loss	dB	1.0
Final reflection loss	dB	0.5
Initial transmission loss	dB	1.0
Final transmission loss	dB	0.5
Initial absorption loss	dB</	

In the Claims:

Please amend claims 9, 17 and 18.

9. An AWG according to claim 1, wherein each ~~input/output~~ waveguide is a double-mode waveguide.
17. An array waveguide grating (AWG) device according to claim 1, wherein the first and second slab couplers are arranged so that a longitudinal axis of the second slab coupler is substantially perpendicular to a longitudinal axis of the first slab coupler, said ~~input/output~~ waveguides are arranged to receive zero order output signals imaged at an output face of the second slab coupler, and the AWG device further includes additional waveguides optically coupled to the second slab coupler for conveying higher order signals comprising at least some first order output signals, away from the second slab coupler.
18. An AWG according to claim 17, wherein the ~~input/output~~ waveguides are arranged so as to bend away from an area into which non-zero order output signals imaged by the second slab coupler, comprising at least some first order output signals, diverge from the second slab coupler.